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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,074	07/17/2001	Shantanu V. Kaushikkar	3351.2	2282

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EXAMINER

PRETLOW, DEMETRIUS R

ART UNIT PAPER NUMBER

2863

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/682,074

Applicant(s)

KAUSHIKKAR, SHANTANU V.

Examiner

Demetrius R. Pretlow

Art Unit

2863

-- **Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,10,11,14-18,25-30 and 33-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 6) ☐ Other:

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1,14,16, 17, 27,28,33, 35, 36, are rejected under 35 U.S.C. 102(e) as being anticipated by Montagu (US 6,407,858). Montagu teach By analysis of image data collected through the lens for an array of locations over the slide, the prescan analyzer determines the height of best focus for each location. This data is stored, for access during the examination scan. Note Montagu column 12, lines 32-35 and also note lines 40-55. This is interpreted as receiving location data corresponding to a plurality of probe-feature locations on a substrate; storing the location data; accessing the location data; and scanning the substrate based, at least in part, on the accessed location data.

In reference to claim 14 and 33 Montagu teach locations of a spotted array. Note Montagu column 7, lines 47-53.

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In reference to claim 16, Montagu teach accessing location data corresponding to a plurality of probe-feature locations on a substrate, wherein the location data is stored in memory of a computer; and scanning the substrate based at least in part, on the accessed location data. Note Montagu column 12, lines 33-55.

In reference to claim 17, contain limitations similar to those in claim 1 which was discussed above and an arrayer manager application and scanner control application would be inherent to the invention of Montagu. Note column 11, line 35 and 1-11.

In reference to 27, Montagu teach the limitations discussed above, although Montagu does not explicitly teach a data retriever or a scan area controller however, theses elements would be inherent to the invention of Montagu.

In reference to claim 28, Montagu teach location data stored in memory unit of a first computer. Note column 12, lines 32-35 and also note lines 40-55.

In reference to claim 35, Montagu teach the limitations above as wells as a scanner Note abstract line 12. Montagu does not explicitly teach a data retriever or a scan area controller however, these elements would be inherent to the invention of Montagu.

In reference to claim 36, Montagu teach a computer (Figure 1A), a scanner Note abstract line 12 and the limitations addressed above.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 18, 25 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Hubbell et al. (US, 5,856,101). Hubbell et al. teach enables user specification of probe-feature locations on a substrate, and provides location data corresponding to the probe-feature locations. Note Hubbell et al. column 2, lines 61-67 and column 3 lines 1-3 and 54-60. Hubbell et al. teach storing the location data in a memory unit. Note column 2, lines 61-67 and column 3 lines 1-3, 54-60 and column 4, lines 1-3. Hubbell et al. teach provide the location data to a scanner control application constructed and arranged to scan the substrate based, at least in part, on the accessed location data. Note column 5, lines 28-44. Although Hubbell et al. does not explicitly teach a user interface manager, a data storage manager and an output manager, these elements would be inherent to the invention of Hubbell et al.

In reference to claim 25, Hubbell et al. teach storing the location data in an array content file in memory of a first computer. Note Hubbell et al. column 4, lines 26-37.

In reference to claim 26, Hubbell et al. teach synthesizing chips on the probe which suggests an arrayer which would inherently include a computer constructed and adapted to control the arrayer. Note Hubbell et al. column 6, lines 42-62.

#### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2,10,11,15,29,30,34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montagu (US 6,407,858) in view of Hubbell et al. (US 5,856,101). Montagu teach all of the limitations above.

Montagu does not teach providing a first user interface that enables user specification of the probe feature locations.

Hubbell et al. teach providing a first user interface that enables user specification of the probe feature locations. Note Hubbell et al. column 2, lines 61-67 and column 3 lines 1-3 and 54-60.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Montagu to include the teaching of Hubbell et al. because it would allow the user to input desired characteristics to form and analyze an array. Note Hubbell et al. column 2, lines 61-67 and column 3 lines 1-3.

In reference to claim 15, and 34, Montagu does not teach locations of a synthesized array.

Hubbell et al. teach locations of a synthesized array. Note column 6, lines 52-62.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Montagu to include the teaching of Hubbell et al. because it would help determine if a particular nucleic acid sample is the

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same as or different than the target nucleic acid. Note Hubbell et al. column 6, lines 60-62.

In reference to claim 10, Montagu does not teach storing the location data in an array content file in memory of a first computer.

Hubbell et al. teach storing the location data in an array content file in memory of a first computer. Note Hubbell et al. column 4, lines 26-37.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Montagu to include the teaching of Hubbell et al. because it would help determine if a particular nucleic acid sample is the same as or different than the target nucleic acid. Note Hubbell et al. column 6, lines 60-62.

In reference to claim 11 and 29, Montagu does not teach the first computer is constructed and adapted to control an arrayer.

Hubbell et al. teach synthesizing chips on the probe, which suggests an arrayer, which would inherently include a computer constructed and adapted to control the arrayer.

Note Hubbell et al. column 6, lines 42-62.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Montagu to include the teaching of Hubbell et al. because it would help determine if a particular nucleic acid sample is the same as or different than the target nucleic acid. Note Hubbell et al. column 6, lines 60-62.

In reference to claim 30, Montagu does not teach providing a first user interface that enables user specification of the probe feature locations and access the location data based, at least in part, on the user selection. Hubbell et al. teach providing a first user interface that enables user specification of the probe feature locations and access the location data based, at least in part, on the user selection. Note Hubbell et al. column 2, lines 61-67 and column 3 lines 1-3 and 54-60. Although the data retriever is not explicitly taught it would be inherent to the invention of Hubbell et al.

***Allowable Subject Matter***

7. Claims 3-9,12,13,19-24,31 and 32 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. The primary reason for the allowance of claim 3, is the inclusion of the method step of providing a second user interface that enables user selection of the location data; and accessing the location data based, at least in part, on the user selection. It is this step found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.
9. The primary reason for the allowance of claim 4 is the inclusion of the method step of the first user interface enables the user specification of the probe feature locations by specifying one or more spacing distances between the probe features. It is this step found in each of the claims, as it is claimed in the



combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

10. The primary reason for the allowance of claim 5 is the inclusion of the method step of the first user interface enables the user specification of the probe feature locations by specifying one or more patterns of probe feature locations. It is this step found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

11. The primary reason for the allowance of claim 6 is the inclusion of the method step of the first user interface enables the user specification of the probe feature locations by specifying coordinates. It is this step found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

12. The primary reason for the allowance of claim 12 is the inclusion of the method steps of transferring the location data from the first computer to a memory unit of a second computer; providing a second user interface that enables user selection of the location data; accessing the location data from the memory of the second computer based, at least in part, on the user selection. It is these steps found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

13. The primary reason for the allowance of claim 19 is the inclusion of the limitations of an user interface manager enables the user specification of the probe feature locations by specifying one or more spacing distances between the probe features. It is these limitations found in each of the claims, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

14. The primary reason for the allowance of claims 21-24 is the inclusion of the limitations of an user interface manager enables the user specification of the probe feature locations by specifying coordinates. It is these limitations found in each of the claims, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

15. The primary reason for the allowance of claim 20, is the inclusion of the limitations of an user interface manager enables the user specification of the probe feature locations by specifying one or more patterns of probe feature locations. It is these limitations found in each of the claims, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

16. The primary reason for the allowance of claim 31 is the inclusion of the limitations of an the data retriever receives the location data from the first computer and

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stores the location data in memory of a second computer. It is these limitations found in each of the claims, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Demetrius R. Pretlow whose telephone number is (703) 308-6722. The examiner can normally be reached on Monday - Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow, can be reached at (703) 308-3126. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

Demetrius R. Pretlow  
Patent Examiner

*Demetrius Pretlow* 7/7/03

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